OhioEPA
State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357 FAX: (937) 285-6404

Bob Taft, Governor
Maureen O'Connor, Lt. Governor
Christopher Jones, Director

March 20, 2002

Mr. Johnny Reising
U.S. DOE FEMP
P.O. Box 398705
Cincinnati, OH 45329-8705

RE: EMS DOCUMENTATION AND RTC ON 3A/4A EXCAVATION CHARACTERIZATION AND PRE-CERTIFICATION PSP

Dear Mr. Reising:

Ohio EPA has reviewed the Responses to the United States Environmental Protection Agency and Ohio Environmental Protection Agency Comments on the Project Specific Plan for the Excavation Characterization and Pre-Certification Activities in Area 3A/4A, submitted by DOE on February 19, 2002. Also included with these comment responses were the following documents:

1. Draft EMS Report, "Development and Deployment of the Excavation Monitoring System (EMS),

2. Update to the Real-Time User's Manual incorporating the EMS instrument,

3. Completed Acceptance Testing Plan for the EMS,

4. Validation Report: Volatile Organic Analyses Using the Voyager Field Portable Gas Chromatograph Via Method 6549.0 "Analysis of Volatile Organic Compounds in Field Samples by Manual Headspace Using a Field Portable Gas Chromatograph", dated October 2001.

Ohio EPA's comments on these documents are enclosed.

If there are any questions, please contact Michelle Waller or me at (937) 285-6466 .

Sincerely,

Michelle Waller for

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric U.S. EPA
Terry Hagen, Fluor Daniel Fernald
Francis Hodge, Tetratech
Ruth Vandegrift, ODH
Mark Schupe, HSI Geotrans

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Ohio EPAs Responses to DOEs Comments on Ohio EPAs Comments on the PSP For Area 3A/4A Excavation Characterization and Precertification

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg. #: Line #: Code: C
Original Comment #: 12
Comment: As was stated in our original comment, an area of excavation may be expanded with in situ scanning but never reduced in size. While the RTC begins by saying 'agreed' to our comment, it continues on to completely contradict the comment. In situ scanning can **not** be used to delineate a smaller area of excavation then what is planned as the result of physical samples.

2. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg.#: Line #: Code: C
Original Comment #: 17
Comment:
A) During Ohio EPA's review of DOE's RtC's and reexamination of the Draft 3A/4A PSP for Excavation Characterization and Precertification, it became apparent that DOE has not laid out a clear excavation process. Sampling for WAC and FRL requires two separate approaches to sampling and disposition. It is not clear in the document on how the excavated material will be handled regarding sampling or disposition. Please provide a flow chart and revised section to clarify the manner in which trenching operations will proceed including sampling and material disposition.
B) It would appear that the EMS will approved to be used in the 3A/4A excavations. Ohio EPA finds this to be a far superior method for scanning the trenches (100% coverage) versus the 50 foot intervals proposed for HPGe tripod measurements. Please remove all reference to using the HPGe tripod for scanning of the trenches.

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg.#: Line #: Code: C
Original Comment #: 18 and 20
Comment: Ohio EPA agrees with the action of changing the title of the table to clarify that only COCs which are driving excavation will be listed on this table. To assist readers of this document in the future, we request that a footnote be added to this table clarifying that a separate and complete list of COCs for the production area will be used for certification.

Comments on the Development and Deployment of the Excavation Monitoring System (EMS)

1. Commenting Organization: Ohio EPA Commentor: ODH
   Section #: Table 5-1 Pg #: Line #: Code: C
   Comment: Table 5-1 of the EMS Manual provides theoretical examples of measurements with geometric corrections. Is there any data to compare actual measurements with appropriate geometric corrections to collocated discrete samples analyzed in a laboratory so the data can be compared as performed in prior method validation studies?

2. Commenting Organization: Ohio EPA Commentor: ODH
   Section #: Pg #: Line #: Code: general
   Comment: Has guidance been developed yet for deployment of real-time radon monitors necessary to obtain radon-corrected radium-226 measurements on vertical surfaces, trenches, or steep slopes?

Comments on EMS Measurements
Section of the Users Guidelines

1. Commenting Organization: Ohio EPA Commentor: ODH
Section #: 2.6 Pg #: 2.6-1 Line #: 2nd paragraph, 2nd line Code: c
Comment: Section 2.6 of the draft EMS measurements for the User's manual states the EMS can be used on soft or wet ground as may be typical of a deep excavation. Notwithstanding corrections available for pooled water, this seems somewhat contrary to existing guidance in section 4.11.1 of the User's manual as soil saturated with water may lead to anomalously low results due to fluence attenuation by the water present.

2. Commenting Organization: Ohio EPA Commentor: ODH
Section #: 2.6.6 Pg #: 2.6-10 Line #: Figure 2.6-2 Code: c
Comment: Section 2.6.2 of the draft EMS Measurements mentions under guidance the need in some circumstances when considering making geometry corrections to investigate whether contamination is uniformly distributed. Figure 2.6-2 depicts the procedure for application of geometric corrections for non-flat terrain. It seems appropriate to include a step on the graphic of an action to investigate an area for uniformity of contamination as needed. In addition, hand-held instruments used to evaluate heterogeneity at depth would also have their measurements affected by geometry somewhat as they are subject to the same influences as the NaI and HPGe systems.

3. Commenting Organization: Ohio EPA Commentor: ODH
Section #: Pg #: Line #: Code: general
Comment: The EMS Manual states that geometric corrections, when needed, will be handled manually initially. Prior to deployment of the EMS, there should be a clear and concise SOP detailing how the myriad non-flat geometries encountered will be categorized and corrected for in a manner which will expedite excavation / precertification decisions.

EMS II Acceptance Testing Plan

1. Commenting Organization: Ohio EPA Commentor: ODH
Section #: Attachment A Pg #: A-2 Line #: Requirement 7 Code: c
Comment: The EMS II Acceptance Testing Plan mentions in Attachment A requirement # 7 that a collimator assembly has been purchased for HPGe measurements using a collimator to better define certain areas of potential contamination. Has a calibration been performed over the viewing area of the detector with the collimator in place? The deployment of a collimator should be referenced in the User's Manual.